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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,149	03/11/2004	Takashi Ohama	118736	4313

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EXAMINER	
MCCULLOUGH, MICHAEL C	
ART UNIT	PAPER NUMBER
3653	

MAIL DATE	DELIVERY MODE
03/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,149	OHAMA ET AL.	
	Examiner	Art Unit	
	MICHAEL C. MCCULLOUGH	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,6-15,18 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-15* is/are allowed.

6)☒ Claim(s) *1,3,6-10,18 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The amendment filed 21 November 2007 has been entered.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawano et al. (JP 2000-318904). Kawano et al. discloses a downstream sheet conveying mechanism comprising a first drive shaft (15) perpendicular to a feed direction (see Figure 13b arrow A, below) with four drive rollers (15A-C), a second drive shaft (16) with four segments (see Figure 13b elements B, below) and each segment inclined at an angle of 1-3º (see Page 6 paragraph 0075), and a centermost end of the second drive shaft segment more downstream (16B) than the ends of the second drive shaft (16C).

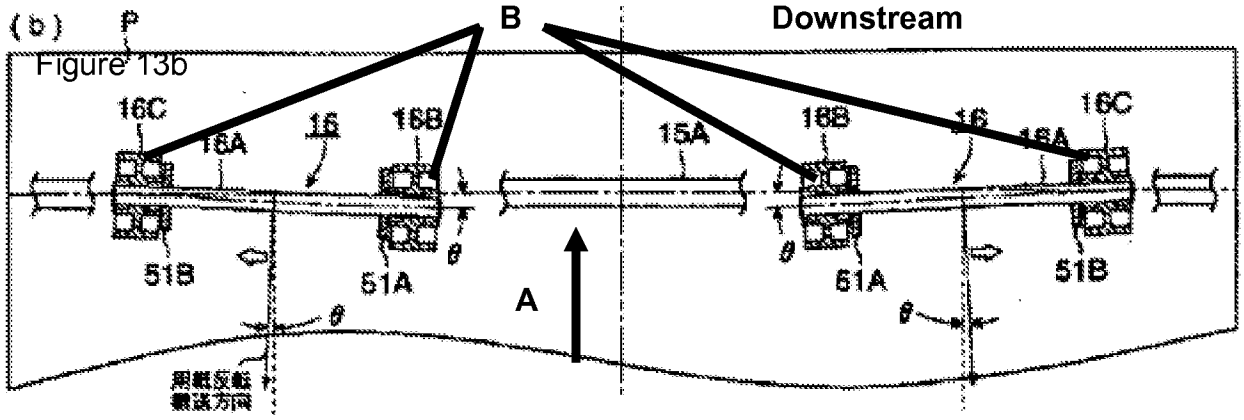

Figure 13b

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3, 6-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler et al. (US 3,66,262) in view of Sako et al. (US 6,073,927). Fowler et al. discloses a sheet feeder in an image reading apparatus comprising an image reading part (37), a drive roller unit (3, 4, 5) with an axis (2) perpendicular to the sheet feed direction (see Figure 1 arrow D, below) that includes driven rollers and is downstream from the image reading part, a driven roller unit (see Figure 1 element C, below) with the same amount of driven rollers (8, 9, 10) as drive rollers arranged symmetrically with respect to a center line (see Figure 3a line E, below) with axes on a slant (8a and 10a) such that the end portion of each axis far from the center of the width is upstream and the close to the center is downstream, an urging member that urges segments of the driven roller unit independently (see column 3 lines 20-27), and a straight conveying path (7 and 25). Fowler et al. does not disclose the drive roller has a coefficient of friction greater than a coefficient of friction of the driven rollers and a conveying pair upstream from an imaging part and a curved conveying path. However, Sako et al. discloses a similar device that includes the drive roller has a coefficient of friction greater than a coefficient of friction of the driven rollers (see column 6 lines 13-20), a conveying roller pair (22 and 21), and a curved conveying path (23) for the purpose of easily sliding against each other (see column 6 lines 13-20), separating a sheet (see column 4 lines 56-63), and guiding a sheet. It would have been obvious for a person of ordinary skill in the art at the time of the applicant's invention to modify Fowler et al. by utilizing drive rollers with a coefficient of friction greater than a coefficient of friction of driven rollers, a conveying pair, and a curved conveying path as

disclosed by Sako et al., for the purposes of easily sliding against each other, separating a sheet, and guiding a sheet.

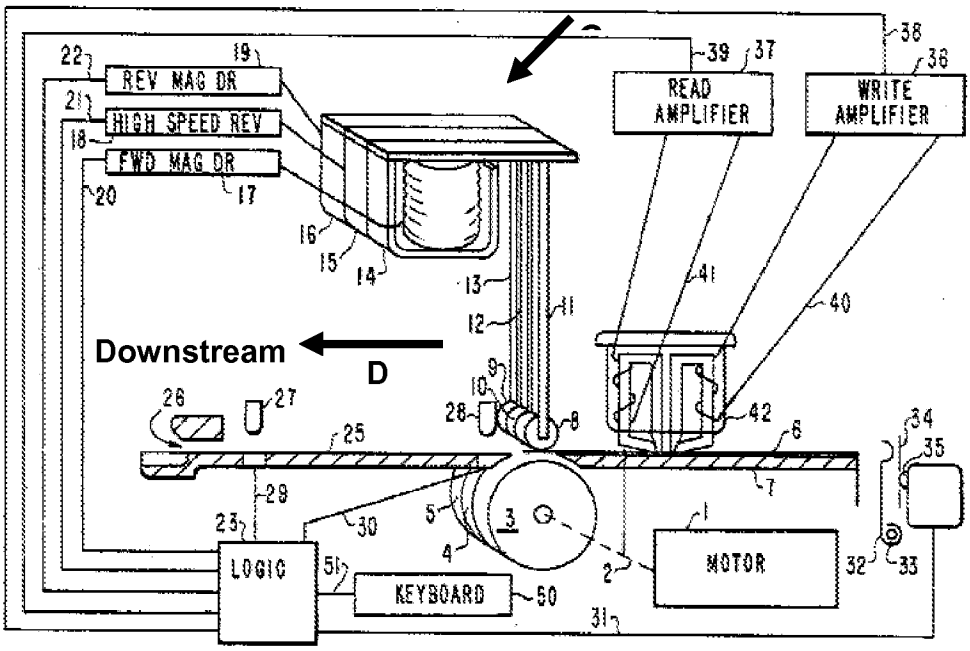

FIG. 1

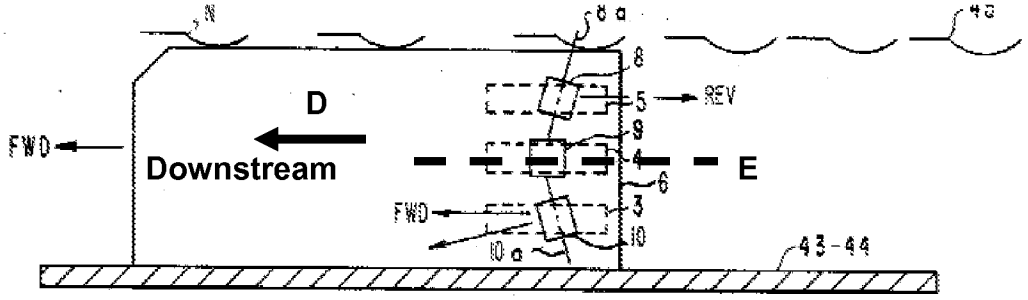

FIG. 3a

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler et al. (US 3,66,262) in view of Sako et al. (US 6,073,927) as applied to claims 1, 3, 6-8, and 10 above, and further in view of Kawano et al. (JP 2000-318904). Fowler et al. in view of Sako et al. discloses all of the limitations of the claims but does not disclose the axis of the driven roller is inclined at an angle of 1-3º. However, Kawano et al. discloses

a similar device that includes an axis of the driven roller is inclined at an angle of 1-3º (see Page 6 paragraph 0075 and Figure 13b elements 16) for the purpose of preventing formation of wrinkles (see Page 7 paragraph 0088). It would have been obvious for a person of ordinary skill in the art at the time of the applicant's invention to modify Fowler et al. in view of Sako et al. by utilizing an axis of the driven roller is inclined at an angle of 1-3º, as disclosed by Kawano et al., for the purpose of preventing formation of wrinkles.

Allowable Subject Matter

4. Claims 11-15 are allowed.

Response to Arguments

5. Applicant's arguments filed 21 November 2007 have been fully considered but they are not persuasive.

6. Applicant argues, with respect to claim 1, that Fowler does not disclose "wherein an axis of a segment of a driven roller unit arranged on one side of the center of the width of the sheet to be fed is aligned with an axis of a segment of a driven roller arranged on the other side of the center of the width of the sheet to be fed" but Fowler merely discloses drive rollers 8 and 10 that are arranged with their axes disposed at a slant on both sides of the center of the width of the sheet to be fed. In response, Fowler discloses the segments are aligned, see Figure 3a/b.

7. Applicant argues, with respect to claim 18, that Kawano fails to disclose "wherein the inclination places a centermost portion of a second drive shaft segment one of more upstream and more downstream in the recording medium feed direction than the first

drive shaft and the outermost portion of such second drive shaft segment one of more downstream and more upstream than the first drive shaft". In response, Kawano discloses this limitation, see Figure 13b. The second drive shaft (16) has a centermost segment that is one of more upstream and downstream than the first drive shaft and the outermost portion is one of more upstream and more downstream than the first Drive shaft. Kawano discloses the shafts of 15 and 16 are parallel with each other in Figures 6, 7, 10, and 13 a. In Figure 13b, shaft 16 pivots in order to the centermost portion of shaft 16 one of more upstream and downstream than the first drive shaft, this rotation causes the outermost portion of the second drive shaft to pivot and will be one of more upstream and downstream than the first drive shaft.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. MCCULLOUGH whose telephone number is (571)272-7805. The examiner can normally be reached on Monday-Friday, 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/
Supervisory Patent Examiner, Art Unit 3653

MCM